EXHIBIT A

"Visualizing Network Data" by R.A.Becker, S.G.Eick and A.R.Wilks / p228fig1
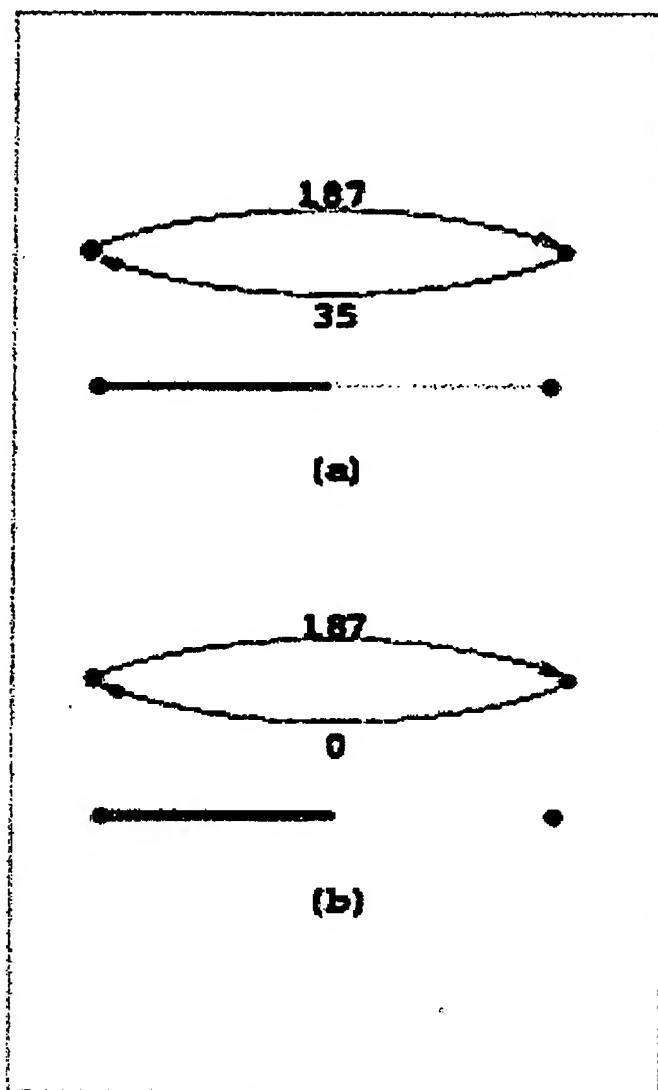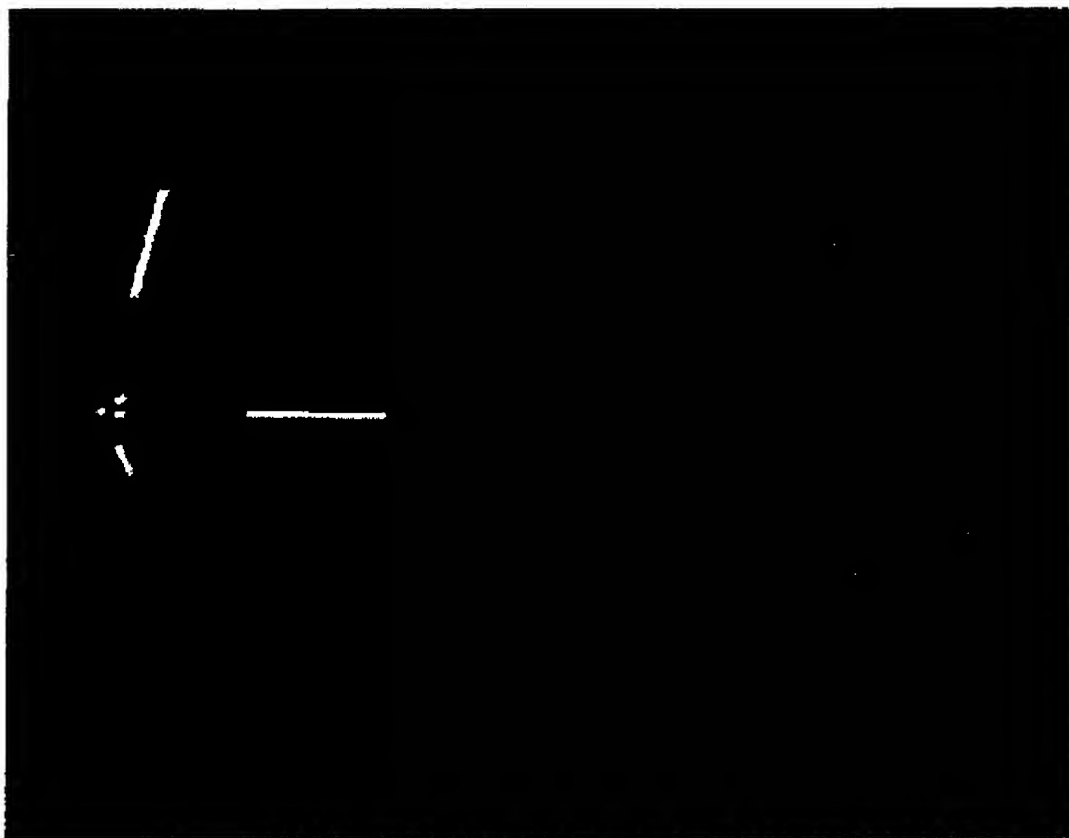
FIGURE 1

Represening Link Data. In part (a), the upper illustration is a
conventional arrow diagram with numbers to show link statistics; the
lower illustration uses line thickness and color to convey the same
information more compactly. Part (b) shows how half-lines represent
statistics with value zero.

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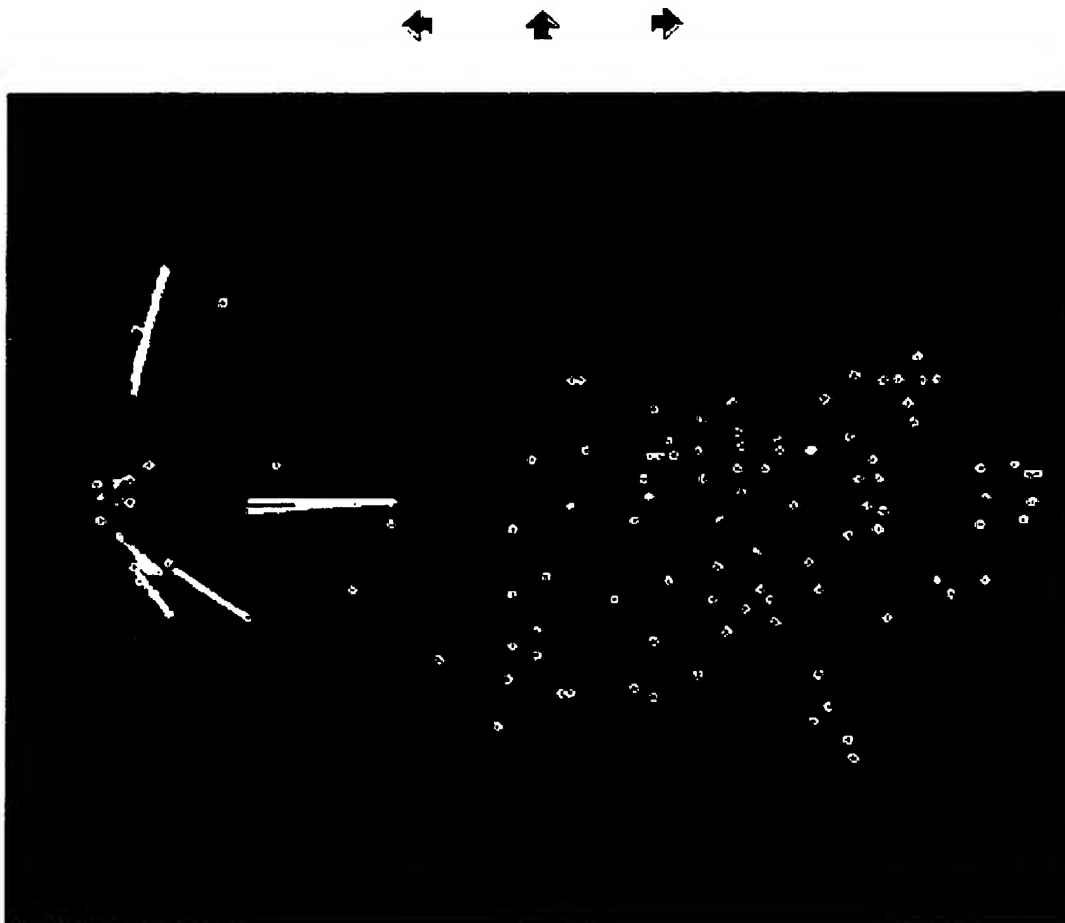

FIGURE **2**

Overload Into One Node. The overload into and out of the Oakland node. The half-lines between the nodes code the overload by direction.
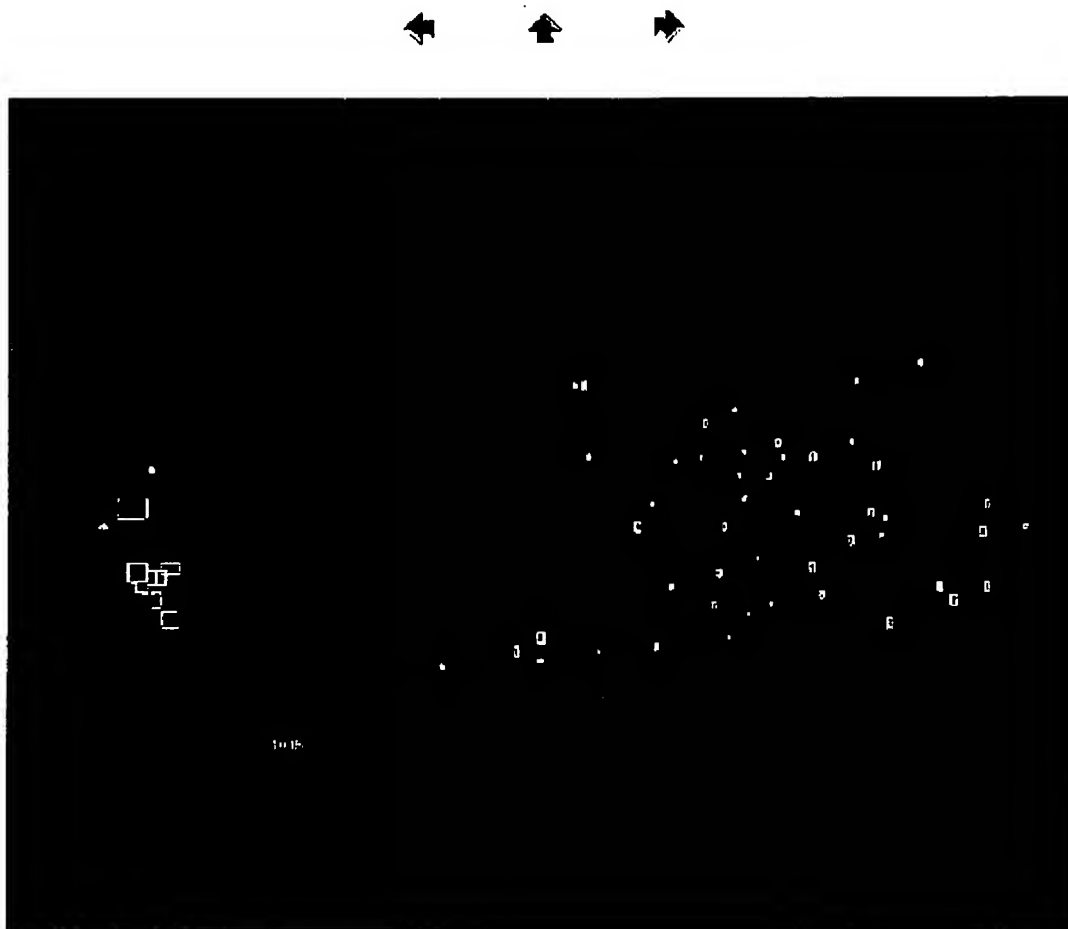
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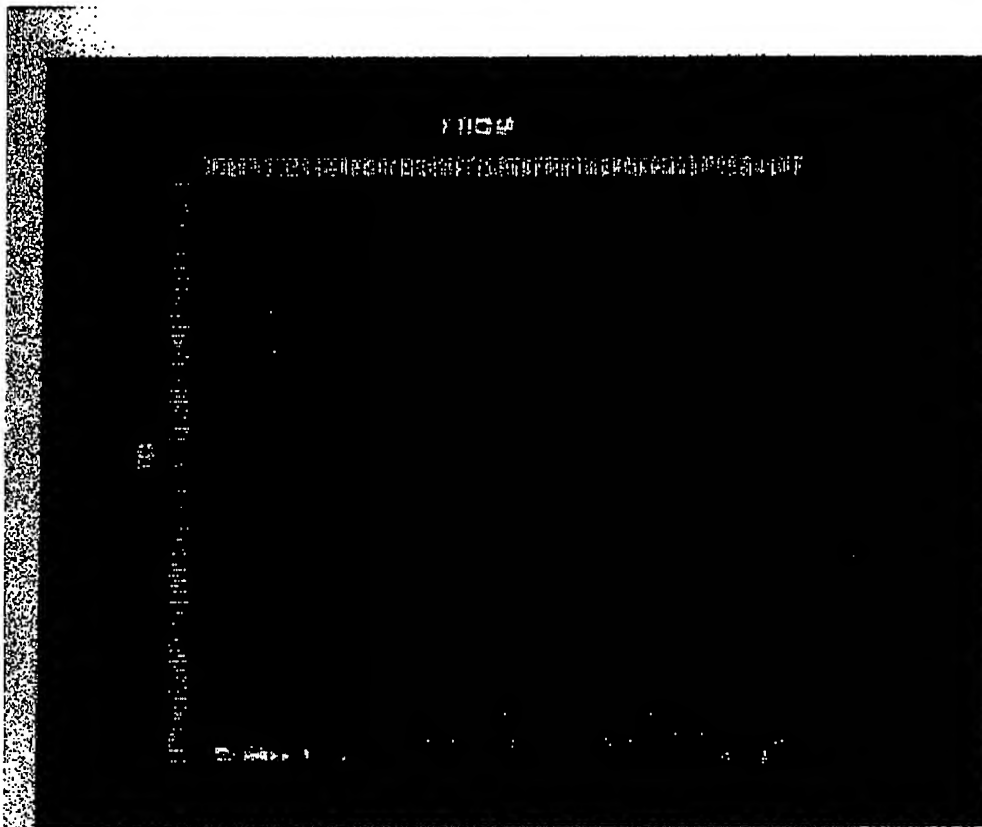

FIGURE 5

Network Overload As Matrix. The same overload as in Fig. 3 shown using a matrix representation instead of a network map. The nodes are shown along the rows and columns in approximate west-to-east order in matrix form, with columns corresponding to "from" nodes and rows corresponding to "to" nodes. At the intersection of each row and column there is a square whose color codes the link statistic. The colored squares on the left and bottom correspond to the lines on Fig. 3. The nonsymmetry is due to the directed nature of the traffic.
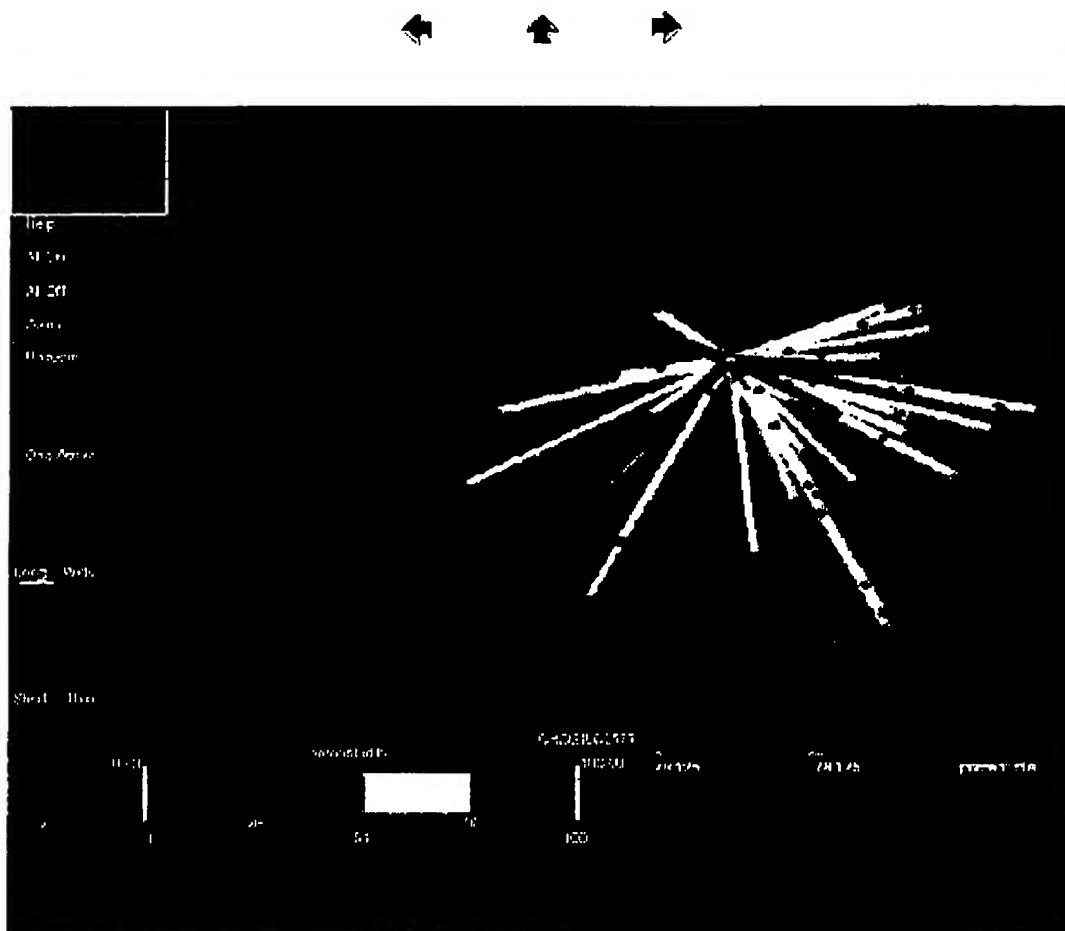
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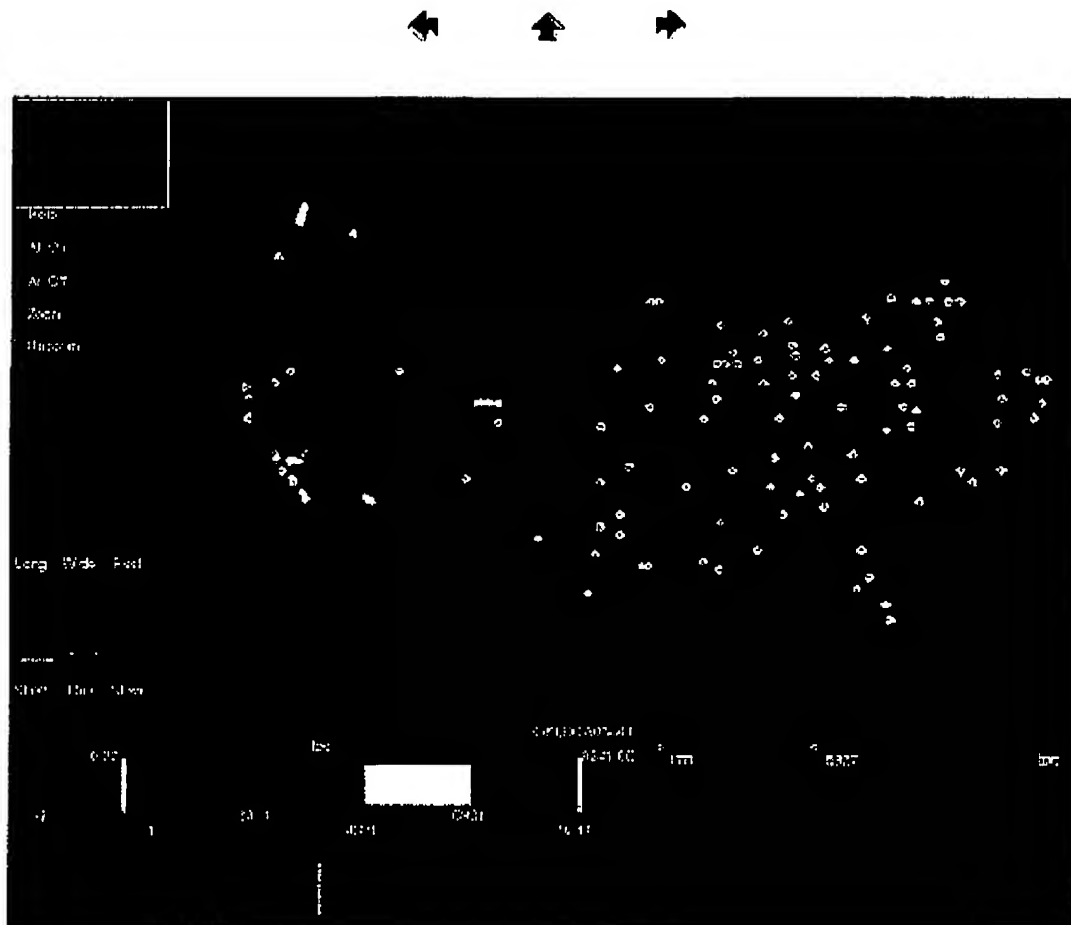
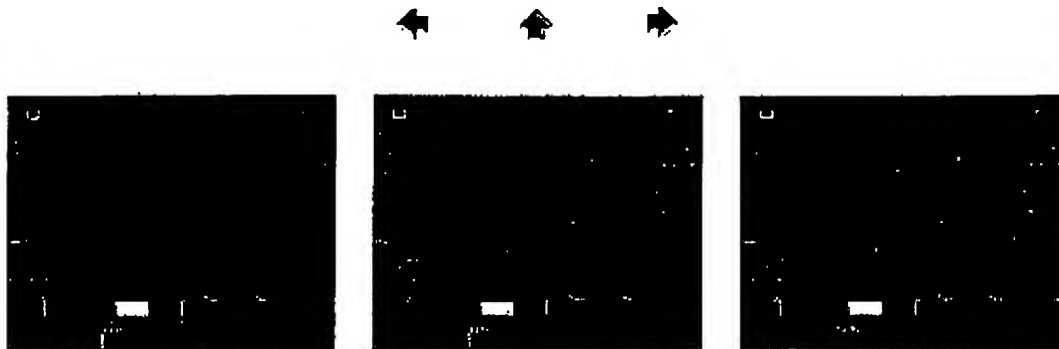"Visualizing Network Data" by R.A.Becker, S.G.Eick and A.R.Wilks / fig7

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FIGURE 9

Internet Network Packet Flows. A schematic representation of the
CICNet regional network, showing routers (larger circles), local area
networks (smaller circles), connections between them (line
segments), and byte flows along the connections (rectangles where
the line segments terminate on the router circles). A flow from the
ARGON (Argonne National Labs) to the MINN (University of
Minnesota) local area networks can clearly be discerned, in spite of
the lack of explicit information about this pair.

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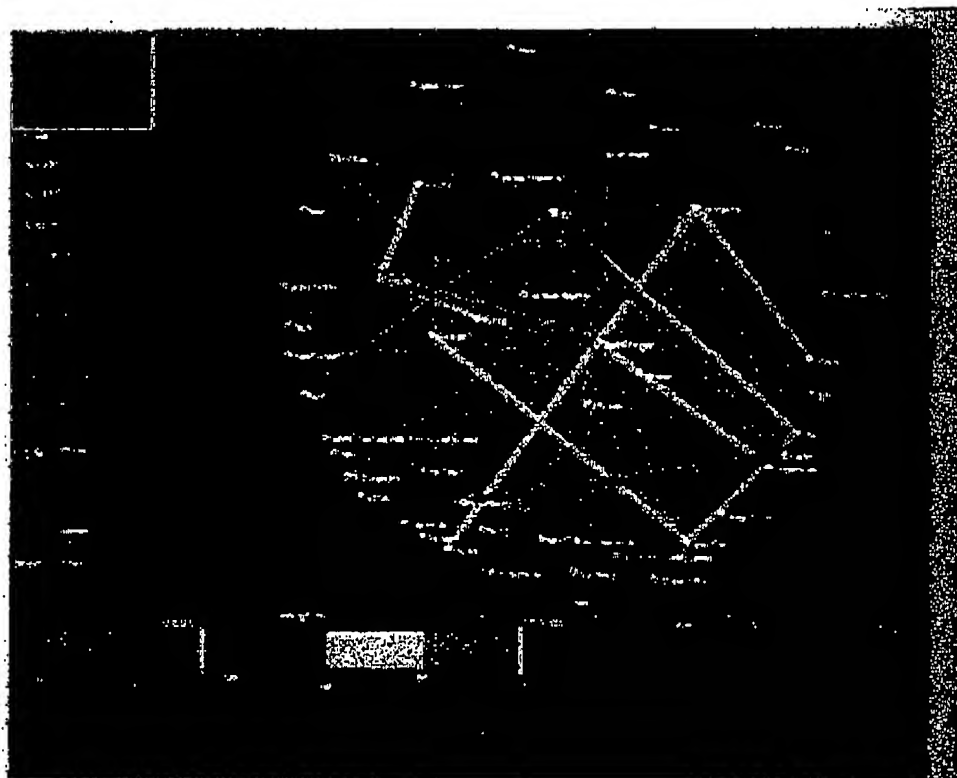

FIGURE **10**

Department E-mail Communication Patterns. Each node corresponds to a user, and the links encode the number of electronic mail messages sent between the users.

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